UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,179	03/27/2001	Richard Francis Russell	2000-0020.00	1247

21972 7590 06/13/2007

LEXMARK INTERNATIONAL, INC.
INTELLECTUAL PROPERTY LAW DEPARTMENT
740 WEST NEW CIRCLE ROAD
BLDG. 082-1
LEXINGTON, KY 40550-0999

EXAMINER	
LESNIEWSKI, VICTOR D	
ART UNIT	**PAPER NUMBER**
2152	

MAIL DATE	DELIVERY MODE
06/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/818,179
Filing Date: March 27, 2001
Appellant(s): RUSSELL ET AL.

Ronald K. Aust, Reg. No. 36735
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/21/2006 appealing from the Office action mailed 4/3/2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,785,727	YAMAZAKI	8-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 12, 17, 18, and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki (U.S. Patent Number 6,785,727).

Yamazaki has disclosed:

- <Claim 1>

A method of sharing a printer between a plurality of users on a computer network, said method comprising the steps of: attaching host-based networking hardware to the printer (figure 2, item 1001); providing a network communication protocol defining a command

channel and a data channel (column 15, lines 36-47); allowing only one of the users to own the data channel at any single point in time on a fair-sharing first come first serve basis (column 8, lines 28-34); and instructing the host-based networking hardware to accept information on the data channel only from the user that owns the data channel (column 10, lines 34-36).

- <Claim 2>

  The method of claim 1, wherein the host-based networking hardware disregards all said information received on the data channel from any of the users that do not own the data channel (column 10, lines 34-36).

- <Claim 3>

  The method of claim l, wherein the host-based networking hardware responds to a command on the command channel from any of the users (figure 15, items S1501, S1502, and S1503).

- <Claim 4>

  The method of claim 3, wherein the host-based networking hardware responds with a status response (figure 15, item S1503).

- <Claim 5>

  The method of claim 4, wherein the status response indicates the user that owns the data channel (figure 16, "Owner").

- <Claim 6>

  The method of claim 1, wherein the user that owns the data channel can release the data channel by sending one of a close signal and a terminate signal on the command channel to the host-based networking hardware (figure 15, items S1505 and S1506).

- <Claim 7>

  The method of claim 6, wherein a print job is aborted in response to the terminate signal (figure 15, item S1507).

- <Claim 8>

  The method of claim 6, wherein a user that does not own the data channel can acquire the data channel by sending a connect signal on the command channel to the host-based networking hardware (column 8, lines 28-34).

- <Claim 9>

  The method of claim 1, wherein the network communication protocol defines a communication frame having at least one of a destination address field, a source address field, a frame identifier field, a command/data definition field, and a payload field (figure 12).

- <Claim 10>

  The method of claim 9, comprising the further step of sending the communication frame from the user that owns the data channel to the host-based networking hardware (column 14, lines 7-8).

- <Claim 12>

  The method of claim 10, wherein the communication frame has a frame number and a sequence number, the host-based networking hardware discarding any said communication frame that does not have an expected said sequence number (column 13, lines 43-46; column 13, line 66 through column 14, line 6; and column 22, lines 57-59).

- <Claim 17>

  A method of sharing a network appliance between a plurality of users on a computer network, said method comprising the steps of: providing a network communication protocol defining a command channel and a data channel (column 15, lines 36-47); allowing only one of the users to own the data channel at any single point in time on a fair-sharing first come first serve basis (column 8, lines 28-34); and instructing the network appliance to accept information on the data channel only from the user that owns the data channel (column 10, lines 34-36).

- <Claim 18>

  A method of sharing a network appliance between a plurality of users on a computer network on a fair-sharing first come first serve basis, said method comprising the steps of: using one of the users to transmit a data frame into the computer network (column 14, lines 7-8); receiving the data frame with said network appliance (column 14, lines 7-8); determining whether a first portion of the data frame includes a unique, predetermined sequence of data (figure 13, items S1303, S1305, S1306, S1307, S1308); reading and processing a second portion of the data frame if the first portion of the data frame includes the predetermined sequence of data (column 13, line 66 through column 14, line

6 and figure 13, items S1304, S1315, S1316, S1317, S1318); and discarding the data frame without reading and processing the second portion of the data frame if the first portion of the data frame does not include the predetermined sequence of data (column 22, lines 57-59).

- <Claim 20>

  The method of claim 18, wherein the first portion of the data frame comprises an initial portion of the data frame (column 13, line 66 through column 14, line 6).

- <Claim 21>

  The method of claim l 8, wherein said determining step is performed in real time without storing the data frame in a memory (column 18, lines 27-59).

- <Claim 22>

  The method of claim 18, wherein the network appliance comprises a printer (figure 2, item 1000).

- <Claim 23>

  The method of claim 18, wherein said determining step is performed exclusively with hardware (figure 11).

Since all the limitations of the invention as set forth in claims 1-10, 12, 17, 18, and 20-23 were disclosed by Yamazaki, claims 1-10, 12, 17, 18, and 20-23 are rejected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki.

Concerning claims 11 and 13, Yamazaki did not explicitly disclose that his printer system would send acknowledgements to the user of the data channel. However the use of acknowledgements between two such devices in a computer network is commonly practiced in the art. For example, see Williams et al. cited previously. Yamazaki's system, which transfers data between the two devices using a bi-directional medium, could easily send acknowledgements from the printer to the user device. Thus, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Yamazaki by adding the ability to send acknowledgements to the user of the data channel because it would help assure proper data transfer as is well known in the art.

Concerning claims 14-16, Yamazaki did not explicitly disclose the use of a timeout when communication frames are not received within a predetermined time period. However the use of timeouts in network connections between two such devices is commonly practiced in the art. For example, see Williams et al. cited previously. Yamazaki's system, which tracks data transfer between the two devices, could easily use a timeout if frames are not received at the printer. Thus, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Yamazaki by adding the ability to use a timeout when communication frames are not received within a predetermined time period because it would help assure proper data transfer as is well known in the art.

Thereby, Yamazaki discloses:

- <Claim 11>

  The method of claim 10, wherein the host-based networking hardware sends an acknowledgement of receiving the communication frame to the user that owns the data channel (obviousness as discussed above).

- <Claim 13>

  The method of claim 12, wherein, in response to receiving said communication frame that does not have said expected sequence number, the host- based networking hardware sends an acknowledgement including the frame number of a last successfully received communication frame to the user that owns the data channel (obviousness as discussed above).

  In addition it has been shown that Yamazaki's system rejects frames and responds to the user in various ways. See column 19, lines 43-50 as one example. Yamazaki's system can return various job data to the user at various times and it could easily return a frame number with that data since the system tracks such packet numbers and identification information.

- <Claim 14>

  The method of claim 10, wherein a timeout occurs when the host-based networking hardware does not receive said communication frame within a predetermined time period (obviousness as discussed above).

- <Claim 15>

  The method of claim 14, wherein the host-based networking hardware aborts a print job after a third said timeout (obviousness as discussed above).

  In addition, taking some action in the system after a set number of timeouts was similarly well known in the art at the time of the applicant's invention.

- <Claim 16>

  The method of claim 15, wherein the host-based networking hardware releases the data channel after the print job is aborted (obviousness as discussed above).

  In addition Yamazaki's system can be set to release the data channel to other users if no data is being passed from the user with the reservation. See column 11, line 53 through column 12, line 11. This same action could sensibly be taken after an abortion due to timeouts.

Since Yamazaki discloses all of the above limitations, claims 11 and 13-16 are rejected.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Official Notice.

The combination discloses:

- <Claim 19>

  The method of claim 18, wherein the data frame has an Ethernet format (Official Notice).

  The use of Ethernet in network communications systems was well known in the art at the time of the applicant's invention. Therefore, Official Notice is taken.

Since the combination of Yamazaki and Official Notice discloses all of the above limitations, claim 19 is rejected.

(10) Response to Argument

In the brief, the appellant has argued:

- <Argument 1>

  Yamazaki does not disclose the features of independent claim 1 and like independent claims because he does not disclose "attaching host-based networking hardware to the printer" as recited in claim 1.

In response to argument 1 (set forth on page 14 of the brief under #2), Yamazaki does disclose the host-based networking hardware as recited in claim 1. The previous line citation to figure 2, item 1001, shows control unit hardware attached to the printer. Yamazaki states that the control unit controls the whole of the printer and analyzes information supplied by the host computer. See, inter alia, column 4, lines 2-5. The control unit is used in order to enable all communications between the printer and the host system and it communicates directly with host computer 2000. Thereby, the control unit is considered to meet the limitation of "host-based" as recited in the claim. The term "host-based" is not further defined or described in the claim so as to be distinguished over such an interpretation.

Concerning the appellant's discussion of a "host-based paradigm" as presented in the specification, it is noted that this discussion in the specification is not set forth as a definition of "host-based networking hardware", nor is the discussion in the specification a limitation of the

claims. The appellant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

- <Argument 2>

  Yamazaki does not disclose the features of independent claim 1 and like independent claims because he does not disclose "allowing only one of the users to own the data channel at any single point in time on a fair-sharing first come first serve basis" as recited in claim 1.

In response to argument 2 (set forth on pages 15-18 of the brief under #2), Yamazaki does disclose the fair-sharing first come first serve basis as recited in claim 1. The previous line citation to column 8, lines 28-34, clearly shows a user's ability to reserve a time zone for the use of the printer so that only one user can utilize the printer (i.e. "own the data channel") at any single point in time. This reservation scheme is seen as meeting the limitation of "a fair-sharing first come first serve basis" as it allows only one user to utilize the printer at a time while creating a sharing system that is fair in that users are allocated print times on a first come first serve basis. The term "fair-sharing first come first serve basis" is not further defined or described in the claim so as to be distinguished over such an interpretation.

Concerning the appellant's discussion of "fair-sharing" as presented in the specification, it is noted that this discussion in the specification is not set forth as a definition of "fair-sharing", nor is the discussion in the specification a limitation of the claims. Further, this discussion

would not seem to distinguish the claim over Yamazaki because Yamazaki also shares the printer fairly among many users and checks to see if a time zone has been reserved by one user before allocating it to another user. Also, a definition of "first come first serve" which might be applied to the claim language could not be found in the specification. The appellant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Concerning the appellant's statements that Yamazaki's reservation scheme is different from the claimed first come first serve system and that Yamazaki's system gives preferential treatment, it is not seen how the limitation of a "first come first serve" basis distinguishes over Yamazaki. For example, the appellant states that "Yamazaki expressly gives preferential treatment to a reserver in a reserved time zone even if another user is first in time in attempting to use the data channel," but this statement is nonsensical because it is apparent that in Yamazaki's system the "reserver" was the user first in time in attempting to use the data channel. This is further exemplified by way of the appellant's own analogy. The appellant states that in an upscale restaurant scenario "a reservation is placed a particular time at a designated table such that the reserver is preferentially served in the reserved time zone, and no other will be permitted in that reserved time zone for that table even if they arrive first," but the appellant has manipulated the idea of arriving first. Clearly, the reserver was the first to place a reservation for that time. Every patron had the opportunity to reserve the time, but the reserver was the first to do it. In the same way, it can be seen that Yamazaki's system allows equal opportunity to all users to reserve a certain time zone for utilizing the printer. Thus, Yamazaki does set forth "a

fair-sharing first come first serve basis" as this terminology has not been further described in the claims so as to distinguish it over Yamazaki's system.

- <Argument 3>

  Yamazaki does not disclose the features of dependent claim 5 because he does not disclose "wherein the status response indicates the user that owns the data channel" as recited in claim 5.

In response to argument 3 (set forth on page 18 of the brief under #4), Yamazaki does disclose the indication of the user that owns the data channel as recited in claim 5. The previous line citation to figure 16, "Owner", shows that data returned to the host computer includes the "Owner" of each print job (i.e. the user that owns the data channel during that time). Concerning the appellant's statement that the "Owner" relates "to the Owner of the document", it is contended that this is in fact the user who is utilizing the printer for that reserved time.

- <Argument 4>

  Yamazaki does not disclose the features of dependent claim 8 because he does not disclose "sending a connect signal on the command channel" as recited in claim 8.

In response to argument 4 (set forth on page 19 of the brief under #6), Yamazaki does disclose sending a connect signal as recited in claim 8. The previous line citation to column 8, lines 28-34, clearly shows the ability of a user to request a time zone reservation for the printer.

A reservation request is sent on the command channel and allows the user to acquire the data channel, thus it is seen to meet the limitation of "a connect signal" as claimed.

- <Argument 5>

  Yamazaki does not disclose the features of dependent claim 12 because he does not disclose "the host-based networking hardware discarding any said communication frame that does not have an expected said sequence number" as recited in claim 12.

In response to argument 5 (set forth on page 20 of the brief under #8), Yamazaki does disclose discarding communication frames as recited in claim 12. The previous line citations to column 13, lines 43-46; column 13, line 66 through column 14, line 6; and column 22, lines 57-59, show that Yamazaki's system discards all data not from the user of the current print job (i.e. the owner of the data channel). Concerning the appellant's discussion of job number, it is contended that the job number is a sequence number as claimed. Yamazaki describes a job number as a received sequence. Concerning the appellant's discussion of "host-based", see the response to argument 1 above.

- <Argument 6>

  Dependent claim 13 is not obvious over Yamazaki because "the host-based networking hardware sends an acknowledgement including the frame number of a last successfully received communication frame to the user that owns the data channel" as recited in claim 13 is not obvious over Yamazaki.

In response to argument 6 (set forth on pages 22-23 of the brief under #2), sending an acknowledgement as recited in claim 13 is obvious over Yamazaki. The appellant's only argument appears to be that "the Examiner does not address how the portion of claim 13 underlined above is disclosed, taught or suggested by Yamazaki." However, it is noted that this limitation was rejected as being obvious over Yamazaki. The appellant has not responded to the statements of obviousness made in the rejection which show that the use of acknowledgements in the claimed fashion was well known in the art and that one of ordinary skill would have been motivated to use acknowledgements in Yamazaki's system to help assure proper data transfer, a well known need in the art, and a well known advantage produced by using acknowledgements. The rejection further describes various ways in which Yamazaki's system rejects frames and responds to users, which also suggests a possible usage for acknowledgements in the system. See the rejection above.

- <Argument 7>

  Dependent claims 14-16 are not obvious over Yamazaki because "wherein a timeout occurs when the host-based networking hardware does not receive said communication frame within a predetermined time period" as recited in claim 14, "wherein the host-based networking hardware aborts a print job after a third said timeout" as recited in claim 15, and "wherein the host-based networking hardware releases the data channel after the print job is aborted" as recited in claim 16 are not obvious over Yamazaki.

In response to argument 7 (set forth on pages 23-24 of the brief under #3), timeouts occurring, aborting print jobs, and releasing the data channel as recited in claims 14-16 are obvious over Yamazaki. The appellant's only argument appears to be that "nothing in the sole reference relied upon, Yamazaki, expressly or implicitly discloses the use of timeouts." However, it is noted that these limitations were rejected as being obvious over Yamazaki. The appellant has not responded to the statements of obviousness made in the rejection which show that the use of timeouts in the claimed fashion was well known in the art. The rejection further describes an alternative way in which Yamazaki's system releases the data channel, which also suggests that one of ordinary skill in the art would have known how to release the data channel after a print job was aborted. See the rejection above. Concerning the appellant's statement that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination," it is noted that the appellant has not addressed the motivation stated in the rejection, namely that one of ordinary skill would have been motivated to use timeouts in Yamazaki's system to help assure proper data transfer, a well known need in the art, and a well known advantage produced by using timeouts.

The appellant has placed mention of other dependent claims under separate headings, but has not argued them separately, only stating that they are believed to be patentable due to their dependence on claims already discussed above. Thus, the rejections of these claims are maintained based on the rejections of their limitations as cited above as well as the responses

above concerning those claims from which the depend. Further, the appellant has not separately argued the limitations of claim 19 which was rejected over Yamazaki in view of Official Notice. Thus, the limitations of dependent claim 19 are considered to be admitted prior art pursuant to MPEP 2144.03.C.

For the above reasons, it is believed that the rejections should be sustained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

Victor Lesniewski
Patent Examiner
Group Art Unit 2152

Dated: June 7, 2007

Conferees:

Lynne H. Browne
Appeal Practice Specialist, TQAS
Technology Center 2100

6/8/07
BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER